

Evaluating Digital Health System's Success of Public sector Hospitals in Sri Lanka

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The use of Information and Communication Technology (ICT) in the health care sector offers great potential for improving the quality of services provided, the efficiency and effectiveness of health personnel, and organizational cost reduction. Thus, digital health has been a priority for the World Health Organization (WHO). The majority of developed and developing countries report having national digital health initiatives and their digital health budgets continue to rise. Despite large investments made by countries, the magnitude of evidence of success is not proportionate thus, the evaluation of digital health interventions after implementation is critical to ensure perceived benefits, reduce potential negative effects and provide decision-makers with accurate information for improvements and future planning. The purpose of this paper is to focus on digital health success in Sri Lankan public sector hospitals. This study aimed to understand the evidence of success and study different models to select the best model to evaluate digital health success.

The qualitative research was carried out and 15 primary users of digital health projects in Sri Lanka are interviewed to understand their perceived benefits and success. The purposive sampling technique was used to select experts in current digital health projects. A systematic literature review was conducted to explore the Information Systems' success models, usage in other countries and applicability to digital health.

The empirical study findings show that digital health implementation in public sector hospitals in Sri Lanka has made significant progress in establishing digital health policy, national guidelines, administrative structures, heavy investments. Existing research findings show that user acceptance and system usage has positive results. However, the perceived benefits are not adequately evaluated and this study reveals that primary users have mixed opinions on success. They suggest a scientific evaluation to prove the level of success. The systematic literature survey results show Delone & McLean's Information Systems success model as the most comprehensive and preferred model out of many other models. This model has been adapted to suit the digital health evaluation in different contexts adding new dimensions apart from seven original dimensions: Information Quality, System Quality, Service Quality, Use, Intention to Use, User satisfaction, and net benefits. Leadership has been recognized as one of the key driving forces to success in Sri Lankan digital health thus, Delone & McLean's Information Systems success model together with the Leadership dimension could reveal the success level and these results significantly contribute to digital health transformations.

Keywords: Digital Transformation, Digital Health, Public Sector Hospitals, Information System Success Model, Delone & McLean Model

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